

# MONTHLY WEATHER REVIEW,

APRIL, 1878.

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

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## INTRODUCTION.

In compiling the present REVIEW the following data, received up to May 13th, have been made use of, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at one hundred and thirty Signal Service stations and twelve Canadian stations, as telegraphed to this office; monthly journals and means, one hundred and three and one hundred and twenty-nine respectively, from the former, and monthly means from thirteen of the latter; reports from twenty-five Signal Service Sunset stations; two hundred and thirty-seven monthly registers from Voluntary Observers; forty-nine monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports of the Weather Services of the States of Iowa and Missouri; reliable newspaper extracts; special reports.

## BAROMETRIC PRESSURE.

Upon chart No. II is shown the general distribution of the atmospheric pressure for the month by the isobaric lines. Compared with the means for April of previous years, the pressure for the present month averages decidedly lower, especially in the Northwest.

*The local barometric ranges*, as reduced to sea-level, for the month, vary as follows: New England, from 1.00 inch on Mt. Washington to 1.26 at Eastport. Middle Atlantic States, 0.80 at Lynchburg to 1.09 at Sandy Hook. Lower Lake region, 0.81 at Cleveland to 0.91 at Oswego and Toledo. Upper Lake region, 0.87 at Chicago to 1.35 at Duluth. Upper Mississippi valley, 0.82 at St. Louis to 1.29 at St. Paul. Missouri valley, 0.84 at Bismarck to 1.19 at Yankton. Red River of the North Valley, 1.06 at Pembina to 1.28 at Breckenridge. Plains of Nebraska and Kansas, 1.21 at Dodge City to 1.47 at North Platte. Rocky Mountain region, 0.80 at Cheyenne to 0.99 at Deadwood. Between Rocky Mountains and Pacific States, 0.50 at Yuma to 0.75 at Salt Lake City and 0.92 at Winnemucca, Nev. California, 0.31 at Campo to 0.66 at Red Bluff. Texas, 0.76 at Indianola to 1.00 at Fort Concho. Ohio valley and Tennessee, 0.62 at Nashville to 0.77 at Pittsburg. South Atlantic States, 0.65 at Jacksonville to 0.93 at Cape Lookout. Gulf States, 0.52 at Mobile to 0.80 at Shreveport and 0.46 at Key West.

*Areas of High Pressure.*—Seven are described. None of these have been decided.

No. I.—This is a continuation of the high pressure-area spoken of in the March Review as No. X. 1st, it covered the country from Oregon to the Missouri valley, with cold and generally clear weather; a. m. barometer at Virginia City 0.26 in. above normal, and Pike's Peak minimum temperature 3° Fah. 2nd, was central in Montana, but with slightly diminished pressure. 3rd, it moved eastward into the region between the Rocky Mountains and Missouri river, with diminished pressure. 4th, p. m. barometer at Santa Fé 0.13, and midnight at Corsicana, Tex., 0.16, above normals. 5th, central in New Mexico, after which it was dissipated.

No. II.—gradually formed between storms I and II on the 7th. 8th, morning, it reached from the Lower Lakes to the North Carolina coast, with freezing temperatures from northeastern New England northward; midnight, central in the lower St. Lawrence valley. 9th, a. m. barometer at Eastport 0.38 above normal, and temperature below freezing from Nova Scotia and northern Maine northward. 10th, a. m., central on the New England coast, and then disappeared to the eastward, in advance of storm III.